

STEAM TURBINES

from the turbine at a pressure corresponding to a vacuum of about 21 in.

The upper portion of the subsidiary heater utilizes leakage steam, entering at G, from the high-pressure turbine glands.

The condensate from the steam condensed in the main heater is passed into the lower portion of the subsidiary heater, where it comes into contact with the tubes through which the feed water passes on its way to the main

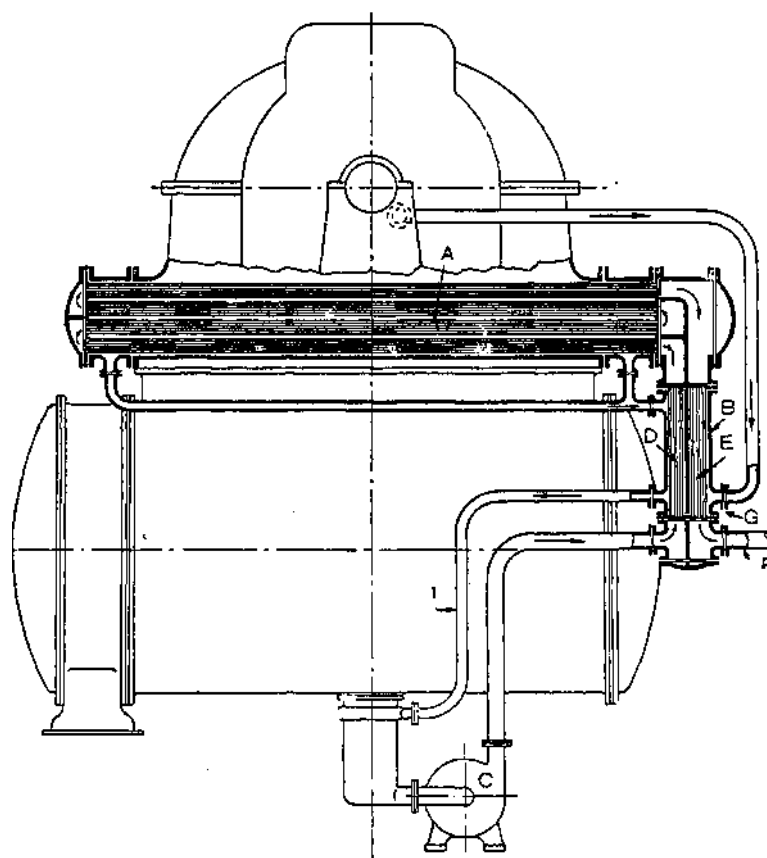


Fig. 22.—Arrangement of Feed Heater on 18,750-Kw. Metropolitan-Vickers Turbine Alternator

heater. The condensate from the steam condensed in the upper portion of the subsidiary heater drains into the lower portion, from which the whole of the condensate is withdrawn by means of a pipe connection to the main condenser.

Numerous test results have shown a gain in fuel consumption of upwards of 5 per cent due to the use of this system.

The blade system generally follows standard Rateau practice, except that the low-pressure blades are axially tapered to reduce the centrifugal stresses.

The Metropolitan-Vickers Company use solid couplings between turbines and alternators, but where gear drives are used a flexible coupling is usually employed between the turbine and the gear pinion.